

## Friends of the Randell Research Center

March 2011 • Vol. 10, No. 1

### RRC to Host Sixth Annual Calusa Heritage Day

*Popular Event Scheduled for  
March 12, 2011, 10 a.m. – 4 p.m.*

*by Cindy Bear and Bill Marquardt*

**The Sixth Annual** Calusa Heritage Day will be held on Saturday, March 12, 2011, bringing together archaeologists, artists, authors, craftspeople, exhibitors, and storytellers around the theme "Native Plant Uses by Native People." Artists participating include Peter Sottong of Naples, who creates extraordinary reproductions of Calusa masks, Felix Rodriguez, whose wooden canoe paddles are stunning in their detail, and David Meo, whose paintings grace new displays at the Ding Darling National Wildlife Refuge.

"Calusa Tastings" will offer a chance to sample roasted oysters, grilled and smoked mullet, and papaya, and those sampling the fare will learn about the archaeological significance of these foods. Storytellers Gerald Hausmann and Gene Toncray will join others to share tales and Carol Mahler, author of *Guy LaBree, Barefoot Artist of the Seminoles*, will be among the authors present. Speakers include John Beriault (10:30 a.m.), Lee Newsom (11:15 a.m.), Robin Brown (12:15 p.m.), and Bill Marquardt (1:00 p.m.).

Examples of native plants with information about their many uses by early and contemporary people will be featured in the native plant tent and vendors will be on hand selling native plants suitable for southwest Florida. Tours of the Calusa Heritage Trail, suitable for all ages and interests, will be offered. Additional walking tours focusing on native plants and wildlife will take participants off the main trail to little-visited areas.

A children's area will feature hands-on activities. Experts from the Florida Museum of Natural History will be on hand with artifacts and information on the use of plants by the Calusa and their predecessors. You will be able to learn how archaeologists identify ancient plant seeds and wood found at the Pineland archaeological site.

The keynote scientific technical lecture by Dr. Lee Newsom, "Paleoethnobotanical Foundations of the Calusa Kingdom," will take place at 2 p.m. in the Classroom. Seating is limited, so pre-registration is required for only this Calusa Heritage Day event by calling 239-283-2157. The 2 p.m. presentation will be made

*Continued on page 2*



*Felix Macaguani Rodriguez will be one of the many artists and craftspeople on hand for Calusa Heritage Day. (Photo by C. O'Connor.)*

### What is Paleoethnobotany?

Botany is the study of plants. Ethnobotany is the study of how living people use plants. So, Paleoethnobotany is the study of the use of plants by people who lived in the past. A special branch of archaeology, it focuses on plant use by people who are no longer living. Paleoethnobotanists study seeds, wood, pollen, and phytoliths recovered from archaeological sites such as Pineland in order to discover what plants people used for food, medicine, fuel, tools, and housing. By comparing plant uses through time, they can also find out how the environment has changed, and how people adjusted to those changes.

## Some Facts About Native Plants and Their Uses by Native People

Source: *50 Common Native Plants Important In Florida's Ethnobotanical History*, by Ginger M. Allen, Michael D. Bond, and Martin B. Main, 2002.

- Ethnobotanical uses of plants can be grouped into six main applications: food, fiber (including dyes), medicinal, housing/construction materials, transportation, and miscellaneous uses (tools, toys, weapons, ceremonial objects, etc.).
- Native plants that have been developed into significant commercial crops include pecans (*Carya illinoensis*), blueberries (*Vaccinium* sp.), and muscadine grapes (*Vitis rotundifolia*).
- Estimates have suggested that as much as one half of the popular pharmaceuticals employed today have ethnobotanical origins. To date, there are approximately 120 plant-based prescription drugs (95 different species) on the U.S. market.
- There are currently more than 300 plants listed on the state endangered species list in Florida. As native plants disappear, so does opportunity for ethnobotanical uses.
- The flowers of Beach Sunflower, *Helianthus debilis*, with an alum fixative provides a pale green dye, while the seeds produce a purple and black pigment.
- The whole plant of Spanish moss, *Tillandsia usneoides*, with alum, will produce a tan dye while wax myrtle leaves create yellow.
- Although the fruits of Pond apple, *Annona glabra*, can be eaten raw or boiled, a powder made from the seeds is used as fish poison.
- The seeds of Pickerelweed, *Pontederia cordata*, are edible.
- Leaves of Sowthistle, *Sonchus oleraceus*, are high in minerals and vitamin C.

## Explore Estuaries Up Close and Personal

**Muck about** in the shallow waters of Pine Island Sound to see for yourself some of the aquatic critters that call these shallow waters home and you'll quickly understand the importance of these waters. We'll provide the nets, buckets, and information so that you can experience firsthand the marvels of the estuary.

All outings will begin at the Calusa Heritage Trail pavilion and



are available to adults and children over 9 years of age by preregistration only. All children must be accompanied by an adult (one adult per 4 children maximum). Participants must wear sturdy, old shoes, clothing to get wet, and expect to encounter mud!

We are pleased to be sponsored by the Charlotte Harbor National Estuary Program and able to make these "muck abouts" free to participants. Call 239-283-2157. Each date is limited to 20 people. 🐼



(Photos by C. O'Connor)

### "Muck Abouts"

Saturday, March 26, 2011

Saturday, April 9, 2011

Saturday, April 23, 2011

Saturday, May 7, 2011



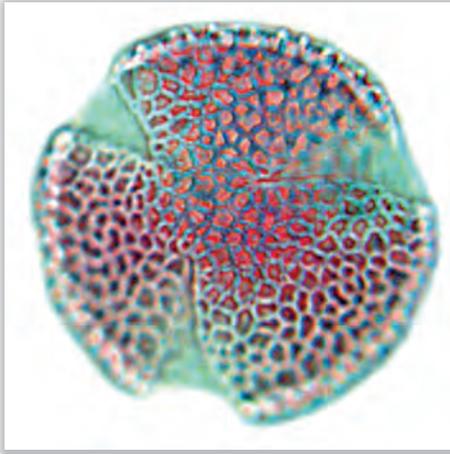
### Calusa Heritage Day *Continued from page 1*

available after Calusa Heritage Day on the RRC's website. Dr. Newsom will also offer a non-technical public talk at 11:15 a.m. in the Speakers tent. Dr. Newsom will draw on her work at Florida Archaic sites, particularly Little Salt Spring and Windover, to provide the foundational evidence for plant uses, including gourds, fabrics, and medicinal plants, by early people. Transitioning and narrowing her focus to Southwest Florida and Pineland, she will focus on the Calusa and the archaeological evidence from Pineland and share relevant data from

studies in the Caribbean. Food and drinks will be available, and the gift shop will be open for business.

The event takes place at the Calusa Heritage Trail, with free parking provided across the street from the trail at the Pineland Marina. Access to the Marina will be via Pineland Road, north on Robert Road, and west on Caloosa Drive. Admission for the day is \$5 for adults, children under 12 free. All proceeds benefit the RRC's mission to teach about and preserve our Calusa legacy. *We hope to see you there!* 🐼





*Pollen of the Gentian family of flowering plants points to insect pollination and represents the earliest land plants recovered from Florida. (Photo by D. Jarzen.)*

## Pine Island Holds Clues to the Oldest Land Flora in Florida!

*Oldest Known Land Plants in Florida were at Pine Island*

by David M. Jarzen

Some of the pollen was identified as airborne, and could have travelled to Pine Island over great expanses of water. However—and of great significance—some pollen is related to plants that are pollinated by insects, and are not transported far at all. Contrary to earlier beliefs that Florida was submerged during the Eocene, there must have been land at or near the present site of Pine Island in order for the plants to have grown and the pollen to have entered the fossil record.

Similar studies of rocks from Levy and Citrus counties in Florida have also demonstrated that Florida was not submerged during the Eocene. But the pollen recovered from Pine Island clearly shows that the oldest land plants thus far discovered are from Pine Island. Together, the findings from Florida suggest perhaps a chain of islands from the mainland stretching into the Gulf of Mexico as do the Florida Keys today.

**To learn more:** Jarzen, D.M. and C. Klug, 2010, "A preliminary investigation of a lower to middle Eocene palynoflora from Pine Island, Florida, U.S.A." *Palynology*, volume 34, number 2, pages 164 to 179. 

### What is Paleobotany?

Paleobotany is the branch of Paleontology that focuses on ancient plant life, as revealed by fossils. Thus, Dr. Jarzen's work is an example of Paleobotany, not Paleoethnobotany, because the fossils he studied are from a paleontological site, not an archaeological one. The fossils he identified are about 35 million years old. People did not live in the Pine Island area until about 12,000 years ago.

**Rocks recovered** from the drilling of an injection well on Pine Island provide clues to the nature of the earliest land plants so far discovered in Florida. By identifying the pollen and spores contained in the rocks, and identifying the parent plants that produced the pollen, scientists at the Florida Museum of Natural History and ENTRIX Corporation in Fort Myers demonstrated that Pine Island had land plants growing on the island about 35 million years ago in the Eocene epoch.

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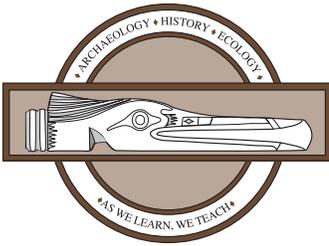
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[www.flmnh.ufl.edu/  
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## RRC News

Editor: William Marquardt

Writers: Cindy Bear  
David Jarzen  
William Marquardt

Production: GBS Productions

Gift Shop & Tour Information:  
(239) 283-2157



Send questions or comments to:

Randell Research Center  
PO Box 608  
Pineland, FL 33945-0608

Telephone: (239) 283-2062

Fax: (239) 283-2080

Email: [randellcenter2@rancerter.  
comcastbiz.net](mailto:randellcenter2@rancerter.comcastbiz.net)

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# Friends of the Randell Research Center

Pineland, Florida • March 2011  
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Sincerely,

William H. Marquardt  
Director  
Randell Research Center



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Photo by A. Bell

